4.9 TRANSPORTATION AND CIRCULATION

This section describes the road transportation system as well as marine traffic in the vicinity of the proposed Project and the impacts of the proposed Project and Alternatives. The analysis in this section is based on field surveys, a review of local and regional maps, and discussions with appropriate agencies.

4.9.1 Environmental Setting

Methods of Describing Traffic

Transportation conditions are often described in terms of levels of service (LOS). LOS is a means of describing the existing amount of traffic on a roadway versus the design capacity of the roadway. The design capacity of a roadway is defined as the maximum rate of vehicle travel, e.g., vehicles per hour that can reasonably be expected along a section of roadway. Capacity is dependent on a number of variables, including road classification and number of lanes, road condition, terrain, weather, and driver characteristics. LOS is generally a function of the ratio of traffic volume (V) to the capacity (C) of the roadway or intersection. The LOS rating uses qualitative measures that characterize operational conditions within a traffic stream and their perception by motorists. These measures include freedom of movement, speed and travel time, traffic interruptions, types of vehicles, comfort, and convenience.

Trucks and other large or heavy vehicles, e.g., wider-than-normal vehicles, slower moving tractors, impact LOS by occupying more roadway space and by having reduced operating qualities than passenger cars. Because heavy vehicles accelerate more slowly than passenger cars, gaps form in traffic flows that affect the efficiency of the roadway. Also, intersections present a number of variables that can influence LOS, including curb parking, transit buses, turn lanes, signal spacing, pedestrians, and signal timing.

The Highway Capacity Manual (HCM) (Transportation Research Board [TRB] 1994) is widely used in traffic studies for predicting LOS for a range of roadways and intersections. The HCM established LOS classifications depending on roadway volume to capacity (V/C) ratios for different types of roadways and for intersections; these are given in Table 4.9-1. The LOS of a roadway is described using a scale ranging from A to F, with A indicating excellent traffic flow quality and F indicating stop-and-go traffic. Level E is normally associated with the maximum design capacity that a roadway or

intersection can accommodate. LOS A, B, and C are generally considered satisfactory. LOS D is considered tolerable in urban areas during peak hours due to the high cost of improving roadways to LOS C.

For divided highways, the LOS classifications are based on the vehicle density, which is a measure that quantifies the proximity of vehicles to each other within the traffic stream and indicates the degree of maneuverability within the traffic stream (TRB 1994).

As discussed above, LOS is determined not only by traffic volumes but also by a number of roadway conditions and intersection details. Determining a roadway's potential to present a traffic flow problem is a time-consuming process; therefore, a screening approach is often utilized. The screening approach involves comparing the roadway class with a traffic volume level for each LOS. The screening levels are developed by making generic assumptions for the data input in the Highway Capacity Manual calculations. The screening approach, however, is used for roadways and not for intersections.

Table 4.9-1
LOS vs. Volume to Capacity Ratios for Different Types of Roadways

LOS	Traffic Conditions	V/C			
		Multi-Lane Freeway [1]	2-Lane Highway [2]	Arterial	Intersection
A	Free-flow conditions with unimpeded maneuverability. Stopped delay at signalized intersections is minimal.	0.30	0.15-0.26	0.00-0.60	<0.60
B	In the range of stable flow, but the presence of other users in the traffic streams begins to be noticeable.	0.50	0.27-0.42	0.61-0.70	0.60-0.69
C	In the range of stable flow, but marks the beginning of the flow in which the operation of individual users becomes significantly affected by interactions with others in the traffic stream.	0.71	0.43-0.63	0.71-0.80	0.70-0.79
D	High-density but stable flow. Speed and freedom to maneuver are severely restricted, and the driver experiences a poor level of comfort.	0.89	0.64-0.99	0.81-0.90	0.80-0.89
E	Near capacity. Operations with significant delays and low average speeds.	1.00	1.00 and over	0.91-1.00	0.90-0.99
F	Forced or breakdown flow. Operations with extremely low speeds, high delay.	--	--	>1.00	1.00 and over

[1] V/C for 65 mph vehicle speed.

[2] V/C for level terrain, when passing is allowed.

Source: TRB 1994; Caltrans 2002.

Table 4.9-2 shows the screening traffic volume levels for determination of LOS for roadways in the project area. The values for Santa Barbara County were adopted by the County for screening traffic impacts. The California Department of Transportation (Caltrans) develops its own screening criteria for determining LOS on the roadways under Caltrans jurisdiction. The roadway capacities listed in the table are "rule of thumb" figures. Some factors that affect these capacities are intersections (in the case of surface roadways), degrees of access control, roadway grades, design geometries (horizontal and vertical alignment standards), sight distance, levels of truck and bus traffic, and levels of pedestrian and bicycle traffic.

Table 4.9-2
LOS Screening Classifications and Roadway Daily Volumes

Roadway Class	Number of Lanes	LOS Classes				
		A	B	C	D	E
Santa Barbara County						
Freeway	6	44,000	74,400	88,800	99,900	111,000
Freeway	4	29,600	49,600	59,200	66,600	74,000
Arterial	4	23,900	27,900	31,900	35,900	39,900
Arterial	2	12,000	14,000	16,000	18,000	20,000
Major	4	19,200	22,300	25,500	28,700	31,900
Major	2	9,600	11,200	12,800	14,400	16,000
Collector	2	7,100	8,200	9,400	10,600	11,800
Caltrans						
Freeway	per lane per hour	710	1,170	1,680	2,090	2,350

Source: Santa Barbara County 1996; TRB 1994.

Marine Traffic

Marine traffic is typically described in numbers of port calls per vessel category, e.g., tankers, container vessels, as well as the number of vessels that traverse a given waterway. Vessels associated with the EMT, which is currently limited to the use of the barge Jovalan and associated support vessels, traverse an area between the EMT and the Santa Barbara Channel shipping lanes, and then onward to the port delivery terminal (Port of Los Angeles/Long Beach or San Francisco Bay destination).

Offshore waters in high traffic areas can be designated as safety fairways to prohibit the placement of surface structures such as oil platforms. The Army Corps of Engineers is prohibited from issuing permits for surface structures within safety fairways, which are frequently located between a port and the entry into a Traffic Separation Scheme (TSS).

A TSS is an internationally recognized vessel routing designation, which separates opposing flows of vessel traffic into lanes, including a zone between lanes where traffic is to be avoided. TSSs have been designated to help direct offshore vessel traffic along portions of the California coastline such as the Santa Barbara Channel. Vessels are not required to use any designated TSS, but failure to use one, if available, would be a major factor for determining liability in the event of a collision. The TSS in the Santa Barbara Channel extends from the waters north of Los Angeles to Point Conception. After its original designation, the U.S. Coast Guard received approval from the International Maritime Organization (IMO) to alter the route of the Santa Barbara Channel TSS near Anacapa Island to accommodate the location of an oil and gas drilling platform.

The route used by the barge Jovalan is described in Section 2.3.7, Barge Jovalan in Project Description. The route is also depicted on Figures 2-4 and 2-5, in Section 2.4, in Project Description.

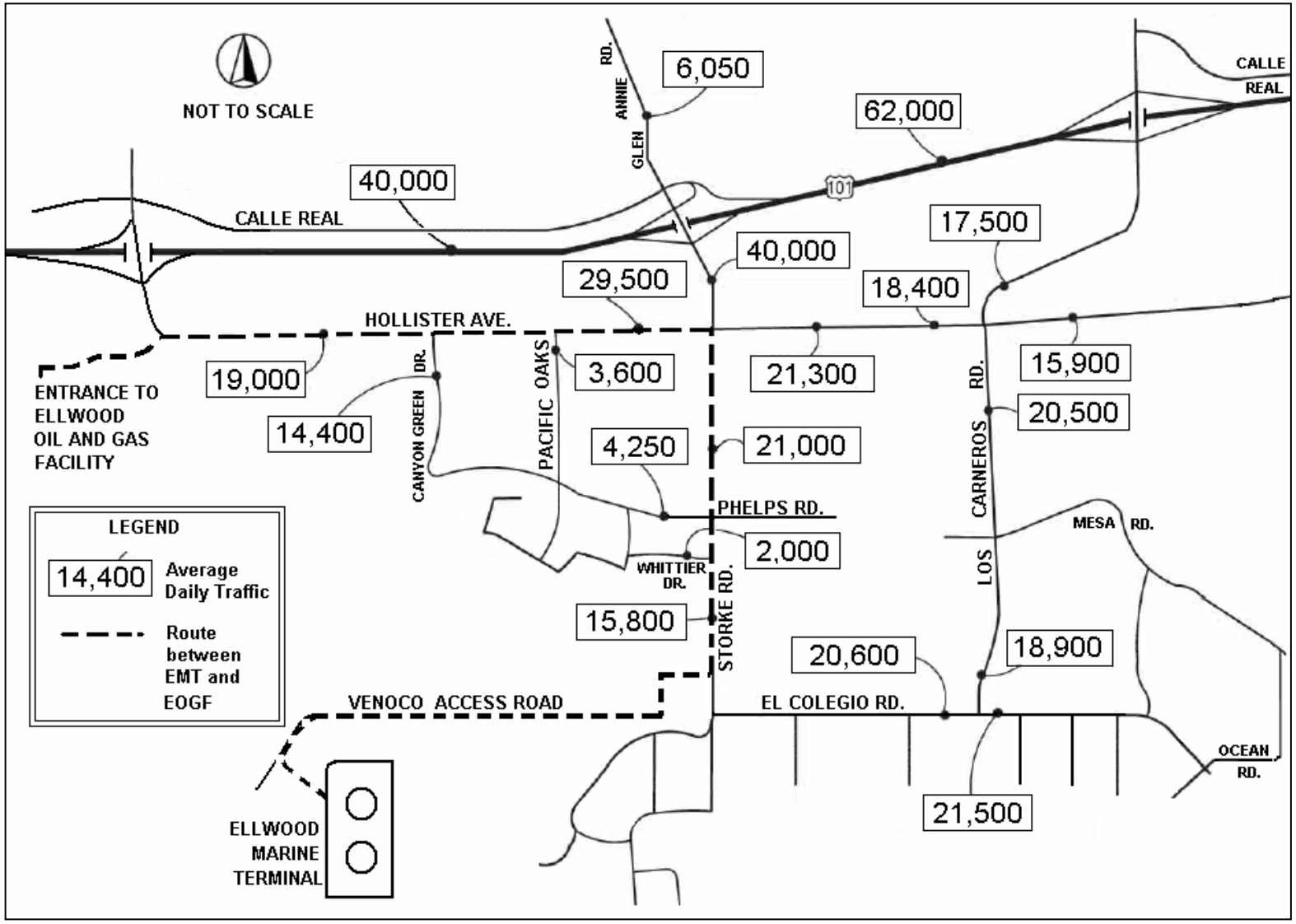
Existing Conditions

Vehicles that travel between the Ellwood Marine Terminal (EMT) and Ellwood Onshore Facility (EOF) use the Venoco Access Road, then Storke Road, Hollister Avenue, and the access road that leads to the EOF (see Figure 4.9-1).

Several transportation studies were conducted recently for the area roadways. Results of these studies were used in three Environmental Impact Reports for residential development and open space projects in the area (City of Goleta 2004, Santa Barbara County 2004, and University of California, Santa Barbara [UCSB] 2004). Data from these documents are presented below.

U.S. Highway 101. U.S. Highway 101 extends along the Pacific Coast between Los Angeles and San Francisco. Within Santa Barbara County, this four- to six-lane highway provides the principal route between the city of Goleta and the cities of Santa Barbara, Carpinteria, and Ventura to the south, and Buellton and Santa Maria to the north. Access to Highway 101 from the project site is provided via the Storke Road interchange.

Figure 4.9-1
Project Area Roadways



EOF Access Road. This road connects the EOF to Hollister Avenue and its interchange with the Highway 101. This access road is a two-lane road that serves primarily as the access road to the EOF, Bacara Resort, and Sandpiper Golf Course. Traffic counts are not available for this road; however, it is assumed that the LOS is A, because it is mostly used by the employees and guests of the above-mentioned facilities this level of traffic is very low for a two lane roadway.

Hollister Avenue. Hollister Avenue is a four-lane arterial roadway that serves as the major east/west surface street route in the Goleta area. Hollister Avenue extends easterly from its terminus at the Highway 101 interchange adjacent to Winchester Canyon Road through the city of Goleta. East of the Goleta area, Hollister Avenue connects to State Street, which extends into the city of Santa Barbara. Within the study area, Hollister Avenue is signalized at the Storke Road, Pacific Oaks Road, Marketplace Drive, and Los Carneros Road intersections (City of Goleta 2004).

Storke Road. Storke Road is a north/south arterial roadway that is four lanes wide between Highway 101 and Phelps Road. South of Phelps Road, Storke Road narrows to three lanes. Storke Road provides freeway access to the western portion of the Goleta Valley, via an interchange at Highway 101. North of the interchange, Storke Road becomes Glen Annie Road, a two-lane road. Storke Road is signalized at the Highway 101 northbound and southbound ramps and the intersections at Hollister Avenue, Marketplace Drive, Phelps Road, and El Colegio Road.

Phelps Road. Phelps Road extends east of Cannon Green Drive as an east/west two-lane road to Storke Road. Phelps Road also extends easterly from Storke Road. The roadway is signalized at Storke Road and is controlled by a stop sign at Pacific Oaks Road.

Venoco Access Road. The road is the only paved road connecting the EMT to the rest of the transportation system. It is a one-lane road used mainly by vehicles that service the EMT, recreational pedestrians, e.g., joggers, dog walkers, and bicyclists. The road is maintained by Venoco. Motorized vehicles are rare on this road; although the traffic counts are not available, it is estimated that peak day activities at the EMT could generate 40 to 50 round trips on this road. However, these activities happen only several times per year.

Marine Traffic. Approximately 18 large ocean-going vessels pass the Santa Barbara Channel per day (SBCAPCD 2003). Substantial volumes of petroleum products are transported off the California coast from Alaska, foreign countries, and between

California production sources. Numerous small private vessels also travel in the Santa Barbara Channel, but the numbers of those smaller boats and vessels are not accounted for in any database.

The barge Jovalan is used for oil transportation by other companies. Thus when it is not involved in oil transportation from the EMT, it is not idle.

Existing Roadway Performance and Future Conditions

Table 4.9-3 lists the existing and future road conditions for the local roadways. The future conditions were estimated by the city of Goleta (2004) and UCSB (2004); the estimate considers all the proposed projects identified for the vicinity.

Table 4.9-3
Road Daily Traffic for the Project-Related Roadways

Roadway	Classification	Existing		Future*	
		ADT	LOS	ADT	LOS
Hollister Ave. at intersection w/ Storke Rd.	4-lane Arterial	29,500	C	31,900	D
Hollister Ave. at northern ramp of U.S. 101	2-lane Arterial	6,900	A	7,700	A
Hollister Ave. (w/o Pacific Oaks)	2-lane Arterial	11,400	A	13,000	B
Hollister Ave. w/o Canyon Green Dr.	4-lane Arterial	19,000	A	21,000	A
Storke Rd. (U.S. 101 ramp — Hollister Ave.)	4-lane Arterial	40,000	F	41,900	F
Storke Rd. (Hollister Ave. — Phelps Rd.)	4-lane Arterial	21,000	A	24,100	B
Storke Rd. (Phelps Rd. — El Collegio)	3-lane Arterial	15,800	A	16,200	A

Notes: * Includes the proposed projects in the vicinity. LOS = level of service; ADT = average daily traffic.
Source: City of Goleta 2004; UCSB 2004.

Table 4.9-4 summarizes the traffic conditions at the project-affected intersections during peak hour.

The Highway 101 traffic conditions in the vicinity of the Project are listed in Table 4.9-5. According to the U.S. Census 2000, population in Santa Barbara County was growing at the rate of 1 percent per year, therefore, this analysis assumes that the population in the next ten years will grow at least at this rate. Future traffic on the local roads and Highway 101 in the area was estimated based on the assumption that the traffic growth is proportionate to the population growth in Santa Barbara County (Santa Barbara County 2000). The results are reflected in Table 4.9-5.

Table 4.9-4
Intersection Traffic for the Project-Related Roadways

Roadway	Control	Existing		Future*	
		V/C Ratio or Delay	LOS	V/C Ratio or Delay	LOS
Calle Real at U.S. 101 NB Off-Ramp	Stop-sign	8.8 sec.	A	8.9	A
Hollister Ave./Calle Real/U.S. 101 NB On-Ramp	Stop-Sign	13.0 sec.	B	14.3 sec.	B
Hollister Ave. /U.S. 101 SB Ramps	Stop-Sign	10.3 sec.	B	11.4	B
Hollister Ave./Elwood School	Signal	0.36	A	0.40	A
Hollister Ave./S.B. Shores Drive	Stop-Sign	8.5 sec.	A	8.7 sec.	A
Storke Rd/Hollister Ave.	Signal	0.84	D	0.97	E
Storke Rd./U.S. 101 NB Ramps	Signal	0.59	A	0.61	B
Storke Rd./U.S. 101 SB Ramps	Signal	0.49	A	0.52	A

Notes: * Includes the proposed projects in Goleta. LOS = level of service; ADT = average daily traffic.

Source: City of Goleta 2004; UCSB 2004.

Bicycle Facilities

Several on- and off-street bicycle facilities are located in the project area. These include Class I (off-street bike path) facilities on the Venoco Access Road and on El Colegio Road east of Storke Road. A Class I bikeway has been constructed along the north side of Phelps Road east of Storke Road.

Class II (on-street bike lane) facilities are present on Storke Road between Hollister Avenue and El Colegio Road and on Phelps Road between Storke Road and Pacific Oaks Road.

Proposed Roadway Projects

According to the city of Goleta, there are no roadway projects planned for project-related roads in the foreseeable future.

According to Caltrans (Caltrans 2004), there is only one road project involving Highway 101 in the vicinity of the EMT, which is widening of the highway from Carpinteria to the Santa Barbara Milpas Road interchange. This project is ongoing.

Table 4.9-5
Existing and Future Traffic Conditions in the Project Area

Road/Route	Existing Traffic					Future Traffic				
	ADT	Peak Hr per Lane	Peak Hour LOS	Non-peak Hour per Lane	Non-peak Hour LOS	ADT	Peak Hr per Lane	Peak Hour LOS	Non-peak Hour per Lane	Non-peak Hour LOS
Casitas Pass Rd.	77,000	2,125	**E**	735	B	82,297	2,274	**E**	796	B
Carpinteria, Linden Ave.	78,000	2,300	**E**	745	B	83,380	2,301	**E**	806	B
Santa Monica Rd./7thSt.	79,000	2,250	**E**	748	B	84,463	2,491	**F**	810	B
South Padaro Ln.	81,000	2,250	**E**	761	B	85,546	2,436	**F**	824	B
Padaro Ln.	88,000	2,375	**F**	783	B	87,711	2,436	**F**	847	B
Evans Ave.	86,000	2,350	**F**	853	B	95,291	2,572	**F**	924	B
Montecito, Sheffield Dr.	87,000	2,250	**E**	833	B	93,126	2,545	**F**	902	B
San Ysidro Rd.	94,000	2,450	**F**	848	B	94,209	2,436	**F**	918	B
Olive Mill Rd.	90,000	2,250	**E**	915	B	101,789	2,653	**F**	991	B
Cabrillo Rd.	105,000	2,650	**F**	880	B	97,457	2,436	**F**	953	B
Jct.Rte.144; Milpas St.	101,000	2,525	**F**	1,026	B	113,700	2,870	**F**	1,111	B
Garden St.	101,000	1,683	D	988	B	109,369	2,734	**F**	1,070	B
Castillo St.	113,000	1,883	D	659	A	109,369	1,823	D	713	B
Carillo St.	135,000	2,300	**E**	737	B	122,363	2,039	D	798	B
Mission St.	149,000	2,133	**E**	878	B	146,186	2,491	**F**	951	B
Jct. Rte. 225 S-E, Las Positas Rd.	136,000	2,000	D	987	B	161,346	2,310	**E**	1,069	B
La Cumbre Rd.	136,000	2,067	D	899	B	147,269	2,166	**E**	973	B
Jct. Rte. 154; State St.	120,000	1,950	D	896	B	147,269	2,238	**E**	970	B
El Sueno Rd.	119,000	1,933	D	785	B	129,943	2,112	**E**	850	B
Turnpike Rd.	119,000	1,933	D	778	B	128,860	2,094	**E**	843	B
Jct. Rte. 217 South (to UCSB)	81,000	1,975	D	778	B	128,860	2,094	**E**	843	B
Fairview Ave.	71,000	1,725	D	795	B	87,711	2,139	**E**	860	B
Los Carneros Rd.	62,000	1,350	C	697	A	76,883	1,868	D	754	B

Table 4.9-5 (continued)
Existing and Future Traffic Conditions in the Project Area

Road/Route	Existing Traffic					Future Traffic				
	ADT	Peak Hr per Lane	Peak Hour LOS	Non-peak Hour per Lane	Non-peak Hour LOS	ADT	Peak Hr per Lane	Peak Hour LOS	Non-peak Hour per Lane	Non-peak Hour LOS
Glen Annie/Stroke Rd.	40,000	1,038	B	615	A	67,137	1,462	C	666	A
Hollister Ave.	38,000	1,013	B	390	A	43,314	1,123	B	422	A
El Capitan Beach State Park	36,000	875	B	369	A	41,149	1,096	B	400	A
Las Cruces, Jct. Rte.1 Northwest	24,500	638	A	353	A	38,983	947	B	383	A
Santa Rosa Rd.	22,400	588	A	239	A	26,530	690	A	258	A
Buellton, Jct. Rte. 246	20,200	538	A	218	A	24,256	636	A	236	A
North Buellton	23,000	525	A	196	A	21,874	582	A	212	A
Zaca, Jct. Rte. 154 East	29,000	788	B	227	A	24,906	568	A	246	A
Los Alamos, Jct. Rte. 135 N-W	27,500	738	B	281	A	31,403	853	B	304	A
Clark Ave.	38,000	800	B	267	A	29,779	799	B	289	A
South Santa Maria	44,000	988	B	378	A	41,149	866	B	410	A
Betteravia Rd.	55,000	1,163	B	435	A	47,646	1,069	B	471	A
East Stowell Rd.	61,000	1,475	C	547	A	59,557	1,259	C	593	A
Jct. Rte. 166 W, Main St.	59,000	1,650	C	599	A	66,054	1,597	C	649	A
Donovan Rd.	58,000	1,700	D	570	A	63,889	1,787	D	617	A
Jct. Rte. 135 S	64,000	1,650	C	557	A	62,806	1,841	D	603	A
San Luis Obispo County	64,000	1,650	C	624	A	69,303	1,787	D	676	A

Source: Caltrans 2005.

4.9.2 Regulatory Setting

International and Federal regulations and jurisdictions in regards to vessel safety are described in Section 4.2, Hazards and Hazardous Materials.

Federal

The Federal government passes the responsibilities of maintaining and regulating of the roadways to the state and local levels.

United States Coast Guard (USCG)

USCG, through Title 33 (Navigation and Navigable Waters) and Title 46 (Shipping) of the CFR, is the Federal agency responsible for vessel inspection, marine terminal operations safety, coordination of Federal responses to marine emergencies, enforcement of marine pollution statutes, marine safety (navigation aids, etc.), and operation of the National Response Center for spill response. They are also the lead agency for offshore spill response.

On November 27, 1996, USCG underkeel clearance regulations for tanker vessels without double hulls became effective (33 CFR 157.455). These regulations require, in part, that the ship's master calculate the tanker's deepest navigational draft and the controlling depth of the intended transit, and discuss these issues with the pilot prior to any transit.

Current USCG regulations require a federally licensed pilot aboard every tanker vessel mooring and unmooring at offshore marine terminals.

State

Caltrans maintains the State highway system, including Highway 101, which provides the main vehicle access to the project area. Maximum load limits for trucks and safety requirements for oversized vehicles are generally regulated by Caltrans for operation on highways.

Local

The Santa Barbara County Association of Governments (SBCAG) is designated by State and Federal governments as the Metropolitan Planning Organization (MPO), the Local Transportation Authority (LTA), and the Regional Transportation Planning Agency

(RTPA). Under these designations, SBCAG has responsibility for all regional transportation planning and programming activities.

The proposed Project would be subject to the provisions of the Santa Barbara County Congestion Management Program (CMP). The CMP is a comprehensive program designed to reduce auto-related congestion and designates major highway and road segments within the project vicinity. The CMP requires an assessment of the Project's potential impacts on the designated roadways, which include Hollister Road and Highway 101. As the Congestion Management Agency (CMA) for Santa Barbara County, SBCAG is responsible for the development and implementation of the county-wide CMP. All urban counties are required to have a CMP.

4.9.3 Significance Criteria

- Traffic impacts would be considered significant if any of the following applies to the Project or Alternatives:

- Project traffic must use an access road that is already at or exceeds LOS E or brings a roadway down to LOS E.

- Project traffic changes average daily LOS of roadways under Caltrans jurisdiction to below D, or contributes over 100 peak-hour trips to a roadway with LOS E or F.

- Project traffic increases an intersection peak hour V/C ratio or adds number of trips by the value provided in Table 4.9-6:

Table 4.9-6
Goleta and Santa Barbara County Traffic Significance Criteria for Intersections

Peak Hour LOS (including Project)	Increase in V/C	Additional Trips per hour
A	0.20	—
B	0.15	—
C	0.10	—
D	—	15
E	—	10
F	—	5

- Project traffic would result in a substantial safety hazard to motorists, bicyclists, or pedestrians.

- Project implementation results in insufficient parking.
- Project traffic would restrict one or more lanes of a primary or secondary arterial roadway during peak-hour traffic, thereby reducing its capacity and creating congestion.
- An arterial or collector roadway would be closed to through traffic as a result of project activities, with no suitable alternative route available.
- Project activities would:
  - restrict access to or from private property or adjacent land uses, e.g., beach, pier, port facilities, etc., with no suitable alternative access,
  - restrict movements of emergency vehicles with no reasonable alternative access routes,
  - impede pedestrian movements or bike trails, with no suitable alternative routes, or
  - result in noticeable deterioration of pavement or roadway surfaces.
- Project activities would reduce the existing level of safety for navigating vessels.

4.9.4 Impact Analysis And Mitigation

The existing traffic associated with the EMT consists of one trip per day by the maintenance crew (two one-way trips). In case of an accident or unforeseen maintenance, e.g., to remove tank contents or sump liquids from the EMT, there could be up to 40 to 50 vehicle trips per day; however, these are unusual circumstances. The typical one trip per day would continue if extension of the lease is granted and the facilities start operating at the permitted levels. This level of traffic constitutes no impact to the local roads. Thus, the project would have no transportation impacts.

The existing daily vessel traffic would not substantially change with the proposed Project. During each trip to and from the EMT, the barge, tug and assist vessels would continue their operations as currently occurs. The change would be in the annual number of trips made by the barge Jovalan, which would increase from approximately 22-24 trips to a maximum of 88 trips per year. Currently the barge Jovalan is in almost continuous use, with trips to the EMT scheduled within a narrow window at the

convenience of the barge operator. Thus if the barge would be making more trips to the EMT, it would be making fewer transportation assignments elsewhere than it currently performs. Overall, with the proposed Project, trips made by the barge Jovalan would not increase, only the trip pattern would change, but would still occur according to the applicable safety precautions and along the established vessel routes. The navigational safety would not change with the proposed Project, and thus there would be no vessel transportation impacts from the Project.

4.9.5 Impacts of Alternatives

Detailed descriptions of the No Project Alternative and the alternative methods of crude oil transportation have been provided in Section 3.0, Alternatives.

No Project Alternative

Under the No Project Alternative, Venoco's lease would not be renewed and the existing marine terminal would be subsequently decommissioned with its components abandoned in place, removed, or a combination thereof. Under the No Project Alternative, an alternative means of crude oil transportation would either need to be in place prior to decommissioning of the EMT or production at Platform Holly would cease. For purposes of this EIR, it has been assumed that the No Project Alternative would result in a decommissioning schedule that would consider implementation of one of the described transportation options. As a result, surface or vessel traffic impacts would occur under this Alternative only until operations at the EMT cease.

If the EMT facilities are abandoned (except abandonment in place) and removed, significant short-term traffic impacts could result from removal. Traffic impacts due to abandonment would be addressed in a separate environmental document.

Truck Transportation

If oil is transported via trucks, vessel transportation of oil from the EMT would cease, therefore, there would be no vessel transportation impacts under this Alternative.

Impact T-1: Transportation Impacts from Trucks

The trucks transporting oil would produce long-term transportation impacts to the roads between the EOF and Carpinteria (Less Than Significant, Class III).

Impact Discussion

This method of oil transportation involves trucking the produced oil from the EOF to the Venoco Carpinteria Oil and Gas Facility. The worst case would involve 82 daily truck trips from the EOF (164 one-way trips), with the maximum of 4 to 5 trucks (8 to 10 one-way trips) per hour. The trucks would travel along the access road that connects the EOF to Hollister Avenue, then along Highway 101, and use either Carpinteria Avenue or Bailard Avenue off-ramps to reach the Dump Road that leads into Venoco's Carpinteria Oil and Gas Facility. The truck deliveries of the oil would be staggered over the length of the day. This level of traffic increase would not be significant even for congested roads (see Table 4.9-5). Highway 101 experiences LOS of E or F during the peak hours of 4:30 p.m. to 5:30 p.m. southbound and 8 a.m. to 9 a.m. northbound; however, the addition of 4 to 5 trips during the peak hours would not significantly degrade the LOS of the affected Highway 101 segments. Thus, the transportation impacts would be adverse, but less than the significance criteria (Class III).

Pipeline Transportation

If oil is transported via a pipeline, vessel transportation of oil from the EMT would cease, therefore, there would be no vessel transportation impacts under this alternative.

Impact T-2: Transportation Impacts from Pipeline Construction

The pipeline construction would result in short-term transportation impacts to the roads along the pipeline right-of-way (Potentially Significant, Class II).

Impact Discussion

With this alternative, a new pipeline would be constructed. Short-term transportation impacts would occur on the roadways adjacent to the pipeline right-of-way (ROW) and those that would be used for deliveries of the pipeline construction materials and equipment. Potentially significant impacts would include:

- Damage to the road surfaces due to movements of heavy machinery and trucks, and/or due to the pipeline construction if the ROW includes a road or a side of the road; and

- Closures of lanes or entire roads, e.g., Calle Real, that would result in restrictions to traffic, emergency vehicles, bicycles, or pedestrian movements through the roads, bike trails or pedestrian walks adjacent or part of the pipeline ROW.

All project-related transportation impacts could be mitigated through development and implementation of a Construction Traffic Control Plan.

After the pipeline is constructed, operational traffic would include, in the worst case, pipeline surveys that would be done weekly by maintenance crews. One trip per day on a weekly basis would have no impact on the transportation network along the new pipeline ROW. Thus, there would be no operational transportation impacts from this method of crude oil transportation.

Mitigation Measures

T-2a. The Applicant shall prepare, provide funding for, and implement a Construction Traffic Control Plan, which shall be approved by the County and city of Goleta (depending on the segment of the pipeline), and would include but not be limited to the following:

- Provide traffic controls when lanes are closed due to pipeline construction, e.g., flaggers, detour signs, orange safety cones;
- Close the pipeline trench for the non-work hours with approved plating, and surround the trench with safety barriers if necessary;
- Provide detours for emergency vehicles;
- Provide alternative routes for bicycles and pedestrians if feasible;
- Notify the residents or owners of any properties adjacent to the pipeline ROW of the construction schedule at least one week before construction in their vicinity;
- Provide access to the affected properties during the construction; if access to businesses is not possible during the work hours, provide lost-sales compensation; and
- Monitor for road damage from construction-related activities and compare the affected roads at the end of the construction to the pre-construction conditions; repair any visible construction-caused damage to restore the road to its pre-construction condition or better.

Rationale for Mitigation

Typically, for projects that have a well-developed Construction Traffic Control Plan, transportation impacts are minimized to a less than significant level. The measures in the Plan, when implemented, would ensure that traffic is regulated, safe detours are provided, delays are reduced, and the public is notified and therefore would avoid driving through the areas of construction.

4.9.6 Cumulative Projects Impact Analysis

Other projects proposed in the project area would contribute to transportation congestion; however, because the proposed Project would have no transportation impacts, it would not contribute to cumulative traffic impacts.

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